

Notice of Allowability

Application No.

10/014,831

Examiner

Jason Proctor

Applicant(s)

ZAMMIT ET AL.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response submitted 17 April 2006.
2. ☒ The allowed claim(s) is/are 1-9, 11-14 and 16-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

**EXAMINER'S AMENDMENT AND
REASONS FOR ALLOWANCE**

Claims 1-9 and 11-19 were rejected in Office Action of 17 November 2005.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 April 2006 has been entered.

Applicants' submission on 17 April 2006 has amended claims 1, 7, 11, 12, 16, 18, and 19 and cancelled claim 10. The Examiner's Amendment below has cancelled claim 15. Claims 1-9, 11-14, and 16-19 are pending in this application.

Claims 1-9, 11-14, and 16-19 are allowed.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Ken Fafrak (50,689) on 3 July 2006.

The application has been amended as follows:

Claim 15 has been cancelled.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Applicants' arguments submitted on 17 April 2006 have been fully considered and found persuasive.

The prior art of record does not expressly teach or render obvious the claimed invention as recited in independent claims 1, 16, 18, and 19. US Patent No. 5,870,588 to Rompaey et al. (Rompaey) discloses a method of simulating a digital system comprising simultaneous low-level and high-level simulation (column 6, lines 35-44). Rompaey neither discloses nor teaches the positively recited steps of "analyzing the loop termination condition to determine whether it is not automatically determined to be definitely terminating and, if so, replacing the jump instruction with an exit point."

Therefore, none of the references taken either alone or in combination with the prior art of record disclose a method or apparatus specifically including:

(claim 1) "analyzing the loop termination condition to determine whether it is not automatically determined to be definitely terminating and, if so, replacing the jump instruction with an exit point"

(claims 16, 18, 19) "analyzing the loop termination condition to determine whether it is possibly non-terminating and, if so, replacing the jump instruction with an exit point"

in combination with the remaining elements and features of the claimed invention. It is for these reasons that Applicants' invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Remarks

Applicants have requested that the Examiner review Applicants' previous argument regarding the meaning of "possibly non-terminating" as used in the claims and in relation to the specification, page 50, lines 13-14.

The Examiner agrees that the issue is what is actually claimed.

It appears there is agreement that solving the Halting Problem is not possible at present and therefore a claim that requires solving the Halting Problem would be properly rejected under at least 35 U.S.C. § 112, first paragraph. The Examiner agrees that whether page 50, lines 13-14 describe solving the Halting Problem is irrelevant because the claims are not believed to draw enabling support from those lines.

The Examiner understands the claim language "not automatically determined to be definitely terminating" and "possibly non-terminating" to be supported by, for example, page 50, line 22 – page 51, line 2.

This paragraph describes a course of action to be taken "If a loop **may not terminate**." Determining that "a loop **may not terminate**" is broader than solving the Halting Problem and therefore does not require a solution to the Halting Problem. Applicants' remarks (17 April

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2006) appear to support this interpretation and argue persuasively that the claim language complies with 35 U.S.C. § 112 and is fully supported by the specification.

Conclusion

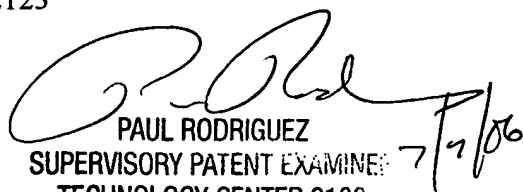
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123

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PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100 7/2/06